BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	)	
Universal Service Contribution Methodology	)	WC Docket No. 06-122
A National Broadband Plan For Our Future	)	GN Docket No. 09-51

REPLY COMMENTS OF THE EDISON ELECTRIC INSTITUTE

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SUMMARY

The Commission should refrain from imposing additional Universal Service Fund ("USF") contribution obligations on the use of "smart grids" or similar machine-to-machine ("M2M") connections or services. As an initial matter, the FCC lacks authority under Communications Act of 1934 (the "Act") to create these obligations because:

- Most smart grid technologies ***do not involve interstate transmission*** of information as defined by the FCC's precedent on jurisdictional allocation;
- Utilities typically do not charge consumers a fee for the use of smart grid technologies, and thus they ***could not constitute "telecommunications services"***; and
- Smart grid technologies ***do not constitute telecommunications*** because they do not permit any single user to transmit information "without change in form or content of the information as sent and received" between points determined by that user.

Although smart grid technologies may make use of interstate telecommunications, which are subject to existing contribution rules, they do not themselves constitute interstate telecommunications. Also, any attempt by the FCC to assert jurisdiction over these technologies would conflict with the regulatory authority of other agencies, including state public utilities commissions and the Federal Energy Regulatory Commission.

The FCC identified the deployment of smart gird technologies as a "national priority" in the *National Broadband Plan*. Targeting smart grids with a new contribution obligation would run contrary to the public interest by unnecessarily increasing associated costs and delaying their deployment, which could lead some utilities to refrain from deploying them altogether. The public interest would be further harmed because the imposition of a new contribution obligation that targets smart grids would trigger numerous, expensive ratemaking proceedings at the state and federal level. For these reasons, the EEI respectfully urges the FCC to exclude smart grid technologies from any new contribution obligations that it may subsequently adopt.

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The Edison Electric Institute ("EEI"), on behalf of its member electric utilities, hereby submits the following Reply Comments in the above-referenced proceeding in response to the Federal Communications Commission's ("FCC" or "Commission") Further Notice of Proposed Rulemaking regarding the reform and modernization of Universal Service Fund ("USF") contribution methodology.[1]

EEI urges the Commission to refrain from imposing an additional USF contribution obligation based on the use of "smart grids" or similar machine-to-machine ("M2M") "connections" or "services."[2] First, the FCC lacks authority under the Communications Act of 1934, as amended (the "Act"), to create a new USF contribution obligation based on the use of "smart grids" or similar M2M connections or services. Second, targeting smart grids with an additional contribution obligation would harm consumers and delay the deployment of innovative non-telecommunications technologies that are a crucial part of our nation's efforts to use energy more efficiently. Finally, adopting a new contribution obligation that targets smart

1 *Universal Service Contribution Methodology et al*, WC Docket No. 06-122 *et al*; Further Notice of Proposed Rulemaking, FCC 12-46 (rel. Apr. 30, 2012) (*FNPRM*).

2 *Id.* ¶¶ 87-94.

grids would create a regulatory and administrative morass, including the triggering of hundreds (if not thousands) of electric ratemaking proceedings around the country.

About The Edison Electric Institute ("EEI")

EEI is an association of U.S. investor-owned electric utilities and industry associates worldwide. EEI members serve approximately 70 percent of all U.S. electricity customers, and generate about 70 percent of all electricity delivered in the United States. EEI frequently represents its U.S. members before federal agencies, courts and Congress, and it has filed comments before the Commission in numerous proceedings affecting the interests of its members.

I. THE FCC LACKS THE AUTHORITY TO IMPOSE AN ADDITIONAL USF CONTRIBUTION OBLIGATION THAT TARGETS SMART GRIDS

The FCC lacks the authority under the Act to create an additional USF contribution obligation based on the use of "smart grids" or similar M2M connections or services. Although smart grids may rely on telecommunications or telecommunications services (which are already subject to the FCC's current contribution requirements), the implementation and operation of a smart grid does not constitute the provision of telecommunications services or even telecommunications. As XO summarized in its comments:

> Section 254(d) of the Act requires that "[e]very telecommunications carrier that provides interstate telecommunications services shall contribute" to universal service funding, and that the Commission establish mechanisms to ensure that contributions are assessed on an "equitable and nondiscriminatory basis." Moreover, the Commission is empowered to require "[a]ny other provider of interstate telecommunications" to participate in universal service funding "if the public interest so requires."[3]

[3] XO Comments at 14 (citing 47 U.S.C. § 254(d)).

Accordingly, the FCC has two potential sources of authority for imposing a new contribution obligation. First, the Act requires the FCC to ensure that all providers of interstate telecommunications services are subject to an equitable and nondiscriminatory contribution obligation.[4] Second, the Act permits the FCC to subject providers of interstate telecommunications to a contribution obligation, but only to the extent the public interest so requires.[5]

A. Smart Grid Technologies Do Not Constitute Interstate Telecommunications Services.

The FCC cannot point to its statutory duty to collect contributions from all carriers that provide "interstate telecommunications services" in order to justify an additional contribution requirement that specifically targets smart grids. The deployment of smart grid technologies, including the use by electric utilities of smart meters that communicate over either the utility's own network or that of a third party, do not constitute "interstate telecommunications services." Specifically, the Act defines "telecommunications services" as "the offering **for a fee** directly to the public, or to such classes of users as to be effectively available directly to the public. . ."[6] Electric utilities do not charge consumers a fee *per se* for the use of smart meters and smart grid technologies, and thus they do not constitute "telecommunications services" under the Act. Moreover, many, if not most, smart grid technologies do not involve **interstate** communications as defined by the FCC.[7]

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4 47 U.S.C. § 254(d).

5 NPR Comments at 6 ("There are two essential elements to the Commission's permissive authority. That authority only extends to 'providers of interstate telecommunications' and only 'if the public interest so requires'").

6 47 U.S.C. § 152(46) (emphasis added).

7 *See, e.g., In re Vonage Holdings Corp.*, 19 FCC Rcd. 22404, 22413 (2004) (explaining that "the Commission has traditionally applied its so-called "end-to-end analysis" based

B. <u>Smart Grid Technologies Do Not Constitute Interstate Telecommunications.</u>

The FCC similarly cannot point to its permissive authority to collect contributions from providers of "interstate telecommunications" when the "public interest so requires" to justify a new contribution requirement that specifically targets smart grids.[8] Specifically, the Act defines "telecommunications" as "the transmission, between or among points specified by the user of information of the user's choosing without change in form or content of the information as sent and received."[9] The deployment of smart grid technologies does not involve the provision, by anybody, of "interstate telecommunications," although some smart grid technologies may use telecommunications services or telecommunications that are already subject to the FCC's general contribution rules.

First, smart grid technologies do not involve the transmission of information "without change in form or content of the information as sent and received" on behalf of ***any*** user, let alone a user who specifies the points between or among which the information is transmitted. Smart grid technologies typically are designed to permit one or more individuals or entities (*e.g.*, a homeowner or business that consumes energy or a utility that supplies energy for consumption) to set one or more goals (*e.g.*, max or min temperatures at specific times, or systematic maximum energy use across multiple energy consumers, open and close circuits, re-route power, monitor

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on the physical end points of the communication. Under this analysis, the Commission considers the "continuous path of communications," beginning with the end point at the inception of a communication to the end point at its completion, and has rejected attempts to divide communications at any intermediate points.") (footnotes omitted).

8 47 U.S.C. § 254(d).

9 47 U.S.C. § 152(43) (emphasis added).

specific network elements),[10] and the system then (i) determines the best means for balancing and achieving these goals; (ii) controls devices and machines in order to implement the selected means for achieving the goals. As part of this process, smart grid technologies are intended to permit both energy consumers and utilities to monitor performance of the system so that goals can be adjusted as necessary. However, the system is designed to control energy consumption rather than to send messages or "information" on behalf of any single "user" between points determined by that single "user." The deployment of smart grid technologies within utility networks varies across the industry; however, network designs generally do not permit any single user to transmit information of their choice -- without change in form or content of that information -- between points designated by that user: telecommunications are not the objective, or the result, of smart grid technologies. Rather, smart grid technologies facilitate more efficient energy usage by offering a more sophisticated means to control devices and machines.[11]

Second, the proposals upon which the FCC seeks comment all assume that the energy consumer is the end user of the telecommunications that would permit the agency to adopt the proposal. However, there is no user of telecommunications because smart grid technologies do not constitute the provision of telecommunications to *anyone*, let alone the energy consumer or even the energy provider. Depending upon the utility system involved, both the energy consumers and the energy providers may control a portion of the typical smart grid technology,

10 Importantly, the goals for a system typically are not set by any single person or entity. Specifically, neither the energy consumer nor the energy provider typically has sole control of setting the goals to be achieved through use smart grid technologies.

11 Smart grid technologies can be analogized to light switches: neither consists of telecommunications, although both could use signals that are transmitted using telecommunications (which are independently subject to the FCC's USF contribution requirements). However, the use of telecommunications does not transform either into telecommunications.

but energy consumers do not specify any points of transmission for information. As NTCA explains:

> [I]n the case of smart meter/smart grid M2M technology, the homeowner or property manager [cannot] be consider[ed] the user [of interstate telecommunications], because that individual neither specifies the ends of the transmission path nor the information transmitted; instead, all such decisions are made by the energy supplier that installs the smart meter . . . .[12]

The complex issues upon which the FCC has requested comment reflect the reality that smart grid technologies are not designed to deliver, and do not deliver, telecommunications to anyone, let alone telecommunications to an individual "end user." This remains true regardless of whether electric utilities deploy their smart grid technologies over their own, internal networks or using the network of some third-party provider (*e.g.*, Comcast or XO). Of course, any interstate telecommunications services purchased by the energy consumer or the energy provider from third parties are subject to the FCC's existing contribution requirements, but their use of these services to enable smart grid technologies would not provide the FCC with authority under the Act to then impose an additional contribution obligation based on the use of the smart grid technology.

Notwithstanding the above, to the extent smart grid communications are deemed to be "telecommunications," the simple presence of a "telecommunications transmission component" as an input does not convert an integrated offering into a "telecommunications

[12] NTCA *et al*. Comments at 34-35. EEI respectfully disagrees with the suggestion that the electrical utility always controls all of the information that may be transmitted by a smart grid system, because both energy consumers and energy providers input information into the system, which does not transmit any of that information without change or content between points determined by any particular "user."

service."[13] In this instance, the FCC is dealing with the utilization by utilities of smart grid technologies and smart meters as components of the electric grid in order to provide more reliable local electric service. The smart meters and smart grid technology at issue here are even more removed from being interstate telecommunications services than BPL-enabled Internet access service (at present non-assessable).[14] Consequently, the utilization of smart grid technology and smart meters in the provision of regulated energy services can in no way convert electric utilities into telecommunications carriers under the Communications Act.[15] Nothing in section 254 (d) changes this calculation.

For similar reasons, the utilization of smart grid technology or smart meters as components or inputs in the provision of reliable local electricity service does not amount to the provision of an interstate information service or interstate telecommunications under section 254 (d) and therefore the FCC cannot exercise its permissive authority. More specifically, these communications do not meet the "transmission to the end user" test under the Commission's proposed definitional approach.[16] Assuming that an entity cannot be both the provider and the end user, utilities do not use smart meter or smart grid technology to provide transmission either "directly or indirectly through an affiliate, to end users" *i.e.* consumers.[17] Smart meters and

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13 *Memorandum Opinion and Order* in WC Docket No. 06-10 (*In the Matter of United Power Line Council's Petition for Declaratory Ruling Regarding the Classification of Broadband over Power Line Internet Access Service as an Information Service*) 20 F.C.C.R. 13,281 (Nov. 3, 2006) ("*BPL Order*") (addressing the provision by utilities of BPL-enabled Internet access service).

14 *Cf., BPL Order*. Additionally, it is doubtful that smart grid or smart meter communications could meet section 153's test which requires the "offering of telecommunications for a fee." 47 U.S.C. § 153 (46).

15 *See e.g.* 47 U.S.C. § 153.

16 *FNPRM* at ¶ 75.

17 *Id*.

smart grid technologies are not designed to permit end users to send messages to the locations of their choice. Rather, they enable functionalities relating to the efficient use of power. The signals and locations where the signal are sent, as well as the format in which they are sent, translated and received, are all determined by the utility, not the end user consumer.

Likewise, for the above-stated reasons, smart meter communications do not qualify as interstate communications. The intrastate nature of most smart-grid technologies also deprives the FCC of authority to adopt a new contribution requirement that targets smart grid technologies. As the Corporation Commission of Kansas explains:

> In 1999 the U.S. Court of Appeals for the 5th Circuit held in *Texas Office of Public Utility Counsel v. FCC* ("TOPUC") that this assessment of intrastate revenues was beyond the FCC's jurisdiction. The FCC amended its rules later in 1999 to comply with that ruling, and so has not assessed intrastate revenues since that time.[18]

Most smart grid technologies are designed to control energy consumption for the location at which the smart grid device itself is installed. Under the FCC's precedent, jurisdiction is determined using an end-to-end analysis,[19] and thus smart grid technologies are inherently intrastate, even for systems that transmit signals to equipment located in a different state. Indeed, the typical smart meter M2M connection, for example runs from the meter to the local distribution plant where the data is aggregated, reformatted and then distributed. While there may be cases involving multi-state companies, smart grid technologies generally do not involve the widespread transmission of any type of signal across state lines.

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18 Corporation Commission of Kansas at 2 (citing *Texas Office of Pub. Util. Counsel v. FCC*, 183 F.3d 393, 417-18 (5th Cir. 1999) (*TOPUC*) (holding found that the Commission did not have jurisdiction to assess federal universal service contribution on intrastate revenues")).

19 *See, e.g.*, *In re Vonage Holdings Corp*., 19 FCC Rcd. 22404, 22413 (2004) (explaining that "the Commission has traditionally applied its so-called "end-to-end analysis").

The FCC must also consider whether the assertion of authority over smart grids would conflict with the regulatory authority of other agencies. While the FCC has jurisdiction over "communication by wire and radio,"[20] its jurisdiction is not unlimited and does not cover the provision of either local or interstate electric service. The FCC implicitly recognized its limited authority over the smart grid and smart meters in the *National Broadband Plan* in that, unlike in other chapters, all of the agency's recommendations regarding the smart grid and smart meters went to actions that entities other than the FCC should take.[21] In particular, the Commission recognized that it was state commissions (and not the FCC) that had authority over smart meter deployments and smart grid rate cases.[22] For this reason alone, the creation of an additional contribution obligation that targets smart grids would not serve the public interest even if it did involve the provision of interstate telecommunications.

II. THE TARGETING OF SMART GRID TECHNOLOGIES WOULD HARM THE PUBLIC INTEREST AND DELAY DEPLOYMENT OF SMART GRIDS

A. <u>USF Contribution Obligations Would Create A Financial Disincentive For Smart Grid Deployment.</u>

As the Commission recognized in the *National Broadband Plan*, the deployment of smart grid technologies is a national priority. Specifically, the *National Broadband Plan* noted that these technologies will "increase the reliability of the electric grid, more efficiently integrate renewable generation, reduce peak demand, and support the widespread adoption of electric vehicles."[23] The *National Broadband Plan* further noted hat the deployment of smart grid

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[20] 47 U.S.C. § 151

[21] *See e.g., National Broadband Plan* at 247-248

[22] *Id.* at 256 ("PUCs should mandate data accessibility as part of Smart Grid rate cases, especially smart meter deployments.")

[23] *National Broadband Plan* at 249.

technologies could "prevent many blackouts," "combat climate change," and "shift energy away from the cripplingly expensive times of peak demand."[24]

Because of the importance of these technologies to the public interest, the Commission should not impose a contribution obligation upon nascent smart grid technologies that will increase both the initial and recurring costs of deployment and potentially delay the transition to these technologies. Indeed, as noted in the *FNPRM*, the Commission has previously "exercised its permissive authority to exempt certain 'providers of interstate telecommunications that generally do not compete directly with common carriers' including those that serve important public safety functions."[25] Even if the Commission believes, contrary to the legal arguments presented herein, that smart grid technologies somehow constitute interstate telecommunications, the Commission should exercise the same permissive authority here to exempt smart grid technologies from USF contribution obligations.

As OnStar, another heavy user of machine-to-machine communications notes, "M2M connection will play a vital role in the future, and imposing yet another tax on these services will undoubtedly stunt their growth."[26] The *National Broadband Plan* also recognized the burden that taxes and regulation can place on the deployment of new technologies, and specifically recommended that "states should reduce impediments and financial disincentives to using commercial service providers for Smart Grid communications."[27] The Commission should endeavor to work with states to reduce impediments to smart grid deployment – not increase them by requiring those deploying smart grids to contribute to the Universal Service Fund.

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[24] *Id.* at 249-250.

[25] FNPRM ¶ 9 & n.20.

[26] OnStar Comments at 21.

[27] *National Broadband Plan* at 247.

B. **<u>The Targeting of Smart Grid Technologies Would Delay Deployment by Creating a Regulatory and Administrative Morass.</u>**

Like incumbent telecommunications carriers, electric utilities are subject to extensive regulation at the both the state and federal levels with regard to rates, facility deployment, and the terms and conditions of their service. In particular, the deployment of smart grid technology and the installation of smart meters are subject to close regulation by state public service commissions.[28] Utility deployment of smart grid technology is also subject to regulation by the Federal Energy Regulatory Commission ("FERC").[29] The imposition of additional regulations and contribution obligations by the FCC into this system will likely result in a Gordian Knot of regulations that will delay the deployment of smart grid technologies.

Specifically, the imposition of USF contribution obligations upon electrical utilities would create a regulatory storm of rate making proceedings at the state and federal levels. Most electrical utilities, like many incumbent telecommunications carriers, are regulated on a rate-of-return basis. Requiring electric utilities to collect USF fees would require them to set up complex and costly new billing systems. The burden of setting up these structures combined with the need to collect the assessments would cause companies to file rate cases in most, if not all, jurisdictions in order to recover their costs and obtain state utility commission authority to recover the fee from consumers. In the event that state commissions, acting in response to negative public reaction to this new FCC tax, were to reject the utilities' rate requests then (unless the FCC were to attempt to preempt the state commissions) the companies would be forced to contribute to the USF without being able to recover their contributions. Similarly, if the FERC were to reject utilities' requests to recover their USF contributions and associated

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[28] *See e.g. In the Matter of BGE*, Order No. 83531, Case No. 9208 (Md PSC 2010).

[29] FERC, *Smart Grid Policy*, 74 Fed. Reg. 37098 (Jul. 27, 2009).

costs from consumers, the utilities would be stuck in the middle of a battle between two federal agencies. Regardless of whether these proceedings ultimately lead to the inclusion of a USF contribution line-item on electrical bills or simply higher rates for consumers, the end result will be delay in the deployment of technologies essential to efficient use of the technology.

III. SMART GRIDS SHOULD, AND MUST, BE EXEMPTED FROM ALL OF THE CONTRIBUTION MECHANISMS UNDER CONSIDERATION

The contribution mechanisms currently under consideration by the Commission need not and should not impose contribution obligations upon smart grid technologies. For example, the majority of commenters urged the retention of the current revenues-based contribution mechanism, albeit with some needed reforms.[30] Under the revenues-based contribution mechanism, there is simply no statutory basis or policy justification for assessing contributions directly from electrical utilities (or from energy consumers) for the deployment and use of smart grid technologies, which do not generate revenue or provide telecommunications. Simply put, smart grid technologies are not sold to consumers for the purpose of generating revenue and are not competitors for telecommunication services dollars; rather, these technologies are deployed (generally at the utilities expense) to improve the efficiency of the electrical network. While these technologies may result in savings both for electricity consumers and the electrical utilities,

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[30] *See* NASUCA Comments at 9 ("A revenues-based mechanism should be maintained and improved."); California PUC Comments at 3 ("the CPUC supports a reformed revenue-based contribution system as the most effective way to assess contributions") ("California PUC"); Alliance of Automobile Manufacturers, Inc. Comments at 1 ("The Alliance urges the Commission to refrain from adopting rules that would assess USF contributions based on assigned telephone numbers or network connections"); Cincinnati Bell Comments at iii; XO Comments at 31 ("a revenues-based contribution methodology is preferable and more administratively simple than a numbers-based, connections-based or hybrid methodology."); NTCA, OPASTCO, and WTA Comments at 35 ("Revenues provide the most efficient route towards contributions reform."); US Cellular Comments at 32 ("the existing revenues-based system, if it is enhanced by certain reforms the Commission should adopt in this proceeding, would work effectively to promote the Commission's universal service and broadband deployment policies.").

these technologies are not revenue generating in the same manner as a traditional common carrier.

Similarly, the imposition of a flat-rate USF-contribution obligation on smart grid technologies based on a connections- or numbers-based mechanism would be catastrophic for the deployment of these technologies. As OnStar explained in its comments, a flat-rate contribution framework (such as a numbers- or connections-based approach) would impose "unfair penalties . . . upon providers of services [like smart grid technologies] that do not use a substantial amount of network capacity or airtime."[31] Moreover, "Even if a numbers- or connections-based approach would be easier to administer or measure in theory [than revenues], the resulting costs would not only be "unfair," they would be wholly unmanageable for many," including electrical utilities that would have to reconfigure both the rates they charge and their billing practices to reflect this new requirement.[32]

IV. CONCLUSION

For the foregoing reasons, EEI respectfully requests that the Commission exempt smart grid technologies from any new or additional USF contribution requirements.

Respectfully submitted,

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31 OnStar Comments at 24.

32 *Id.*

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